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ABSTRACT

The monograph presents a model for identifying gifted/talented children which is based on a multidimensional concept of intelligence, designed to include the less accepted school population in its initial search, and tied to a staff development program for teachers who must be part of the screening process. Rationale for the Multi-Dimensional Screening Device (MDSD) is discussed, and seven steps in implementing the MDSD are outlined, beginning with staff development and individual rating of students to selection of children by a local screening committee. Definitions and examples of the following 10 categories in the MDSD are listed: ability in the visual arts, ability in the performing arts, demonstrated creative or productive thinking, academic ability in a particular discipline; general intellectual ability at or above 1 out of 100 range; leadership qualities, organizing, and decision making, psychomotor history and abilities; history and use of spatial and abstract thinking; high discrepancy between performance and general intellectual ability; and talent associated with the child's cultural heritage. Scoring procedures for the MDSD are described. (CL)

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MULTI-DIMENSIONAL SCREENING DEVICE (MDSD)

for the Identification of

Gifted/Talented Children

by

Bella Kranz

Bureau of Educational Research and Services

University of North Dakota

Grand Forks, North Dakota

1978

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FOREWORD

Equality of Educational Opportunity has long been a major goal of the American educational system. That we have yet to accomplish that goal for all of our school age population ought not, however, to mask the very significant progress that has been made, especially over the past two decades. But as the schools have opened themselves up increasingly to all of America's children, a belief has grown that school systems have declined in their commitment to gifted/talented students while gearing their instructional efforts to "average" students. While I personally have some reservations about the policy and educational implications of such a belief, I am aware that support is growing for special gifted/talented programs.

Where such programs have been established, how are children selected? Bella Kranz argues in this monograph that typical selection procedures, utilizing to a large extent standardized tests, favor mainstream children and restrict opportunities for children from minority and lower socio-economic status families. Because Bella Kranz felt strongly that screening mechanisms had to be inclusive, capable of selecting mainstream as well as non mainstream children, she set out to develop a multi-dimensional screening construct that placed high reliance on teacher training and judgment.

The MDSD developed by Bella Kranz and described in this monograph is a more appropriate instrument for selecting children for gifted/talented programs than what has existed. I encourage schools considering special programs for gifted/talented students to make use of the MDSD or other similar procedures.

Vito Perrone
Dean, Center for Teaching and Learning

INTRODUCTION

Raul and Edna Mae are children in first and third grade classrooms respectively. Their teachers have little difficulty identifying many of their academic strengths and weaknesses, friends in school or how often they are selected as leaders by other children. What their teachers may have difficulty in assessing, however, is Raul's and Edna Mae's less accessible, possibly non-academic, talents. When a word such as "talent" is used, adults often relate it to an individual's ability to play the piano or dance ballet. Raul and Edna Mae do neither, yet they have a range of important talents that are often overlooked.

When Raul, a first grader, was told that his science project was unique enough to make him a candidate for the city-wide science fair he responded, "I don't give speeches." A sense of humor? Teachers often have difficulty analyzing such responses even when they occur quite regularly. They may not be aware of Raul's peculiar talent--a sense of the absurd, playing on words, a satirical analysis of a subject. In a word, he is a highly divergent thinker.

Edna Mae scores high on achievement tests administered by the third grade teacher but appears listless and dramatically untalented with day-to-day classroom assignments. Put some colored tissue, scotch tape and toothpicks within her reach and strange beautiful animals begin to take shape in her fingers. Frequently she spins an interesting myth to fit each creature that is propped up on her desk. Seeing the uncommon in common things is Edna Mae's creative strength. She plays with what is commonplace and winds up with a unique and beautiful product.

The talents represented by Raul and Edna Mae are among those represented in the Multi-Dimensional Screening Device (MDSD) developed for identifying talented children from a variety of social class and ethnic backgrounds.*

Schools have been criticized for not providing enough options and opportunities for children with unconventional talents, those from minority families and those in lower socio-economic groups. Nowhere has this been more evident than in the typical situation of the gifted and talented. A description, rationale and explanation for the use of the MDSD is the central concern of this monograph.

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*The MDSD was piloted and used extensively in Fairfax County, Virginia during 1975-1978. It is now being used extensively in Wisconsin as well as other parts of the United States. In Fairfax County, one of its major strengths was that the number of children identified for gifted programs increased dramatically and included more racial and lower socio-economic members than had been the case when traditional screening procedures were used.

RATIONALE

The process for identifying gifted and talented children in all classes, races, and ethnic groups suggests that conventional methods are inadequate for yielding large numbers of children from non-mainstream populations. Even in mainstream groups, the more traditional academically oriented child will get selected over the artistic or creative one. Children normally overlooked in the screening process may be identified if diverse abilities are selected and sought. Eminent adults who were unrecognized as children often emerge over the years to relate the insurmountable problems they faced as school children in a system whose narrow conception of intelligence left no room for recognition of their special talents. Richard Wright, the eminent Black novelist, found little encouragement for his writing talent as a student. Malcolm X, the Black Muslim leader, found home conditions too demanding for him to remain in a school where he easily mastered most of the tasks in half the time it took fellow classmates. Edward Roybal, a former lawyer and city councilman of Los Angeles in the early 1960's, was told by high school teachers not to go to college but to consider instead a vocational school, more practical for a Mexican-American youth.

Screening procedures which include a multi-dimensional approach must consider a wide range of abilities in addition to those manifested in academic achievement or standard IQ tests if they are to include students normally left out of traditional gifted programs. Multi-dimensional intelligence is a concept developed by J. P. Guilford in some detail in his Three Faces of Intellect (1959),

wherein he suggests that people have at least 120 different kinds of intelligence. Like Bloom's Taxonomy of Educational Objectives (1956), Guilford's work stresses higher levels of thinking which include divergent and evaluative thinking. Divergent thinking is the process of a learner responding to questions such as "what if; suppose that; pretend that." These are questions for which there are an infinite number of acceptable responses and cause the students to rely on both an intellectual and non-intellectual storage of facts to respond. The answers may be new solutions to old problems or to hypothetical problems. Evaluative thinking occurs when a person takes a position on a problem and supplies the evidence for that opinion. Evaluative questions cause students to be committed to a problem and permit them to draw on any number of sources for the response. The student, not the teacher, determines the level of difficulty.

Too often divergent thinking activities are either omitted from school curricula entirely or attended to only if time permits. In any event, this level of thinking has at least two consequences if used on a regular basis: it permits the teacher to see behaviors that are not evident in multiple-choice tests or classroom skill lessons, and it permits an assessment in which hidden qualities of giftedness and talent may be revealed.

The prevailing values in schools are biased in favor of performance on typical standardized achievement tests, middle class aspirations for upward mobility, and the expectation for students to conform to a set of prescribed school behaviors (Holt, 1964; Kozol, 1967; Kohl, 1967; Greer, 1972; Jencks, 1972). Such

values were especially prominent through the decade of the 1960's despite the admonishment to remember:

> Mass education, to be effective, will have to consider the handicaps of the underprivileged and the culturally deprived. It will have to take into account that the boy whose father works on an assembly line is less likely to have books in his home or to know anything about getting into college than is the boy whose father is a college graduate (Sexton, 1961, p. xix).

Representatives of minority cultures are acutely aware of the inadequacies of the school environment for unleashing creative and intellectual potential, much less identifying such performance in any screening procedure (Bernal and Reyna, 1974b). It has taken several years for the schools and for the advocates of gifted education, in particular, to address themselves to Sexton's observation.

> The weight of evidence seems to be that nowhere in a stratified society are equal opportunities open to all people. In school, as in the world at large, opportunities are usually open to students or closed to them in accordance with their social class position (Sexton, 1961, p. 16).

The socio-economic or class bias against gifted and talented poor youth is aggravated by racial discrimination.

A noted contemporary psychologist, Arthur Jensen, proposed an explanation for the differences between poor Black and superior white children's school achievement which, from our point of view, appears racist in its implications. He holds the view that the differences which exist between the racial groups he studied are due primarily to genetic weaknesses in the lower scoring group, Blacks. The leading founder of gifted education in America, Lewis Terman, was an open supporter of the eugenics movement, the so-called science of marriages which would breed superior populations. Although Terman

cannot be linked with Arthur Jensen's current research, his work is, nevertheless, an ideological ancestor (Kamin, 1976; Medwar, 1977; Block and Dworkin, 1976).

Ethnic groups have begun to protest their exclusion from programs designed for the gifted. At a recent meeting to discuss such exclusion, many minority representatives felt "the major barrier [is] the middle class bias that leads to school programs that are unrelated to the life of the child from culturally different backgrounds" (Gallagher, 1975, p. 375).

According to Bernal (1974b), for example, the Mexican-American experience within the dominant culture is alienating, hostile, and costly. Given that fifty percent of Mexican-Americans were under the age of 18 in 1974, it is not hard to see how extensive this problem must be within the school system. Native Americans endure the same kind of deprivation, as Martinson points out:

> North American Indians had normal academic and intellectual development until adolescence, at which time apathy sets in and regression occurs because of their awareness of lack of opportunity for advancement (Martinson, 1972, p. 89).

The literature leaves little room for doubt that a study of screening procedures for the gifted and talented "must face the fact of pervasive racial and economic segregation of the children in our school system" (Passow, 1971, p. 49).

If, in addition to social and cultural neglect, the educational institution should neglect divergent and evaluative thinking, it will omit students with such talents as creative abilities, musical or artistic abilities, predictive, spatial or abstract abilities. There are several screening procedures currently used but only a few

address the fundamental question of multi-dimensional intelligence. A typical screening procedure may include one or a combination of group tests of intelligence and achievement, creativity tests, teacher nominations, parent information, nomination by peers, pupil products, and check lists.

Rather than excluding candidates as traditional tests tend to do, the screening procedures which my colleagues and I have developed--the focus of this monograph--are concerned with widening the pool of candidates.

Conventional group tests, such as the Slossen, the Lorge-Thorndike, and the SRA, frequently start the exclusionary procedures. Research shows that while they do identify academically proficient students, they nonetheless reveal significant weaknesses:

> Many underachievers are missed. The students with hidden talent are not located by tests and are not found until an enriched environment helps them bloom (French, 1964, p. 4).

Most critics of group tests also point out the tests' failure to identify children with high potential in art, music, creative writing, and other artistic abilities (Wolfle, 1969). Essentially, the wide-range achievement group tests initially give little information about non-intellectual talents, and they often discriminate against children of different class, racial or ethnic groups. Ruth Martinson (1960) supports this concern in her research with children in California. In addition, she finds that group tests seem ineffective in distinguishing the less sought divergent thinking student from the conforming academically inclined one. Unconventional learners, when given options on multiple-choice questions of A, B, or C, choose

E and proceed to fill in their logical, if whimsical, response. An example of this is illustrated in the responses of different kinds of learners to a picture for which they are to create a story:

> The high-IQ subject. Mr. Smith is on his way home from a successful business trip. He is very happy and he is thinking about his wonderful family and how glad he will be to see them again. He can picture it, about an hour from now his plane landing at the airport and Mrs. Smith and their three children all there welcoming him home again.
>
> The high-creative subject. This man is flying back from Reno where he has just won a divorce from his wife. He couldn't stand to live with her anymore, he told the judge, because she wore so much cold cream on her face at night that her head would skid across the pillow and hit him in the head. He is now contemplating a new skid-proof face cream (Getzels and Jackson, 1962, pp. 52-53).

Unconventional creative responses like that just described are not uncommon in the behavior of both middle and lower class youth, although the gifted and talented study cited was done with middle class youth. Perhaps the most serious failure of the group test is that it "does not discriminate well between children who are a little above and those who are a great deal above average in learning capacity" (Pegnato & Birch, 1959, p. 79). Teachers have difficulty recognizing creative or divergent abilities of students, often viewing these responses as mischievous or nonacademic. Conventional tests are seldom constructed with allowances for creative or divergent responses. As a result students exhibiting such behavior are missed in the screening procedures aimed at identifying more convergent thinking talented children. An example is Stanley Kubrick, a high school student who failed his regents examination in the New York City public schools, but went on to become a master film maker

of such films as 2001: A Space Odyssey and Clockwork Orange. Another is Gordon Parks, a quiet, nondescript high school student who became a successful photographer and film maker. School tasks and teacher concern with formal requirements obviously failed to recognize the hidden talent these men had.

The individually administered intelligence tests, Binet Revised (1964) or Wechsler Intelligence Scale for Children, WISC (1949), are considered the most effective and efficient device for locating academically gifted and talented (Gallagher, 1975; Martinson, 1974). They are also the most expensive and prohibitive for most school systems to use without preliminary screening to warrant them. In any event, describing intelligence by a single IQ score is an over-simplification and a reduction of the complexity of human intelligence (Block and Dworkin, 1976, p. 46). And increasingly, critics have agreed:

> The objections of the educated to IQ psychology arise from several sets of causes: first, misgivings about whether it is indeed possible to attach a single number valuation to an endowment as complex and various as intelligence; second, a biologically well-founded feeling of repugnance to the notion that differences of intelligence are to so high a degree under genetic control that all the apparatus of pedagogy and special training is necessarily relegated to an altogether minor role (Medawar, Jan. 23, 1977, p. 13).

If neither group tests nor individually administered tests are an appropriate way to start the screening process, what can be said of the next most commonly used technique, teacher recommendations?

Teacher judgment in the screening of gifted and talented candidates has come in for almost as much criticism as group intelligence and achievement scores. Research reported by Pegnato and

Birch (1959) indicates that teachers frequently misidentify or fail to identify gifted candidates. Rosenthal and Jacobson (1968) in their popular study, Pygmalion in the Classroom, suggest that teacher attitudes and values often reflect the teacher's own class and social biases. Teachers in the study seemed to believe that unkempt, poor or minority children had a low potential and treated them as if their abilities were limited. If teachers believe children such as these will occupy jobs of low skills and status, there is a self-fulfilling prophecy which operates in the classroom and during test administration. Another problem with teacher judgment is that a teacher's image of a gifted and talented child is almost exclusively related to academic achievement, orderliness, and conformity to school priorities (Goldberg, 1971, pp. 64-69). Jenkins, in a study of Black students in Chicago, found that teacher selection of gifted and talented students yielded a disproportionate number of girls, "which may mean they favored the well-behaved" (Martinson, 1972, p. 97).

Further, there is the failure to select any children for special programs because teachers tend to subscribe to the adage that "talent will out." Therefore, there is a conviction among some teachers that if a curriculum is planned in accelerated pace, gifted and talented children will identify themselves by merely fitting the Procrustean bed. These teachers believe no special training is needed to identify gifted children since they equate all talent with rapid academic achievement.

On the other hand, a few recent studies show that when teachers are trained in the identification process, teacher judgment in

selecting gifted and talented students is effective (Gallagher, 1975). Selection of the gifted is a difficult task, and it would be unfair not to include here the fact that teachers are not the only school personnel who are poor selectors of the gifted. In a report made in the School Staffing Survey, 57.5 percent of schools nationally stated that they had no gifted pupils (Educ. of Gifted and Talented, March, 1972, p. 29). This response was made at a time when by the most conservative estimates 3% of the school population, or, 1,548,000 pupils, should be identified as gifted and, at 5% of the school population, 5,160,000 would be so identified (Educ. of Gifted and Talented, March 1972, p. 22).

> The report of no gifted pupils by over half of the schools surveyed in 1969-70 is a depressing piece of information. The statistic may indicate widespread ignorance, apathy and indifference, or outright hostility toward the notion that gifted and talented people need attention. Less effort to identify is made at the elementary level than at the secondary, although research stresses the advantages of early identification and planning. Gifted young people with the ability to invent, create and contribute to society at an early age apparently would have little opportunity in the majority of our schools, and probably no encouragement, under the present condition (Educ. of Gifted and Talented, 1972, p. 123).

Teacher check lists are another valuable tool for use in the initial screening procedure of gifted and talented candidates. These lists are often instrumental in alerting teachers to performance indicators where the group achievement tests are inadequate. Among the most useful check lists, many of which are in Ruth Martinson's excellent compendium on identification (1974, pp. 31-38), are: "Some Learning Characteristics of Gifted Children" by May V. Seagoe especially appropriate for early childhood; "Scale for Rating Behavorial Characteristics of Superior Students" by Joseph S. Renzulli and

Robert K. Hartman; "Kindergarten Check List" developed by teachers in the Los Angeles County Schools.

Yet, however well constructed these and other check lists may be by themselves, they will do little to expand the teacher's understanding of multi-dimensional talent. Staff development is the essential component which, when added to a teacher's awareness, can result in an efficient, effective screening of talented candidates.

It is time that screening procedures turn "away from the concept of human ability as something fixed in the physiological structure, to that of a flexible and versatile mechanism subject to greater improvement" (Goslin, 1963, p. 133). It is in this vein that a new screening procedure, MDSD, was conceived and developed. It is a qualitatively different procedure for screening the gifted and talented because it is:

(a) predicated on a multi-dimensional concept of intelligence, (b) designed to include the less accepted school population in its initial search, and (c) intimately tied to a staff development program for teachers who must be a part of the screening process.

The supporters of a multi-dimensional, developmental theory of intelligence, which is highly responsive to both environmental and genetic factors, raise a different problem about procedures for discovering talent. They seem to be more concerned with <u>how</u> people learn rather than <u>how much</u> is learned (Fischer, 1973, Furth, 1973; Piaget, 1962). They have a qualitatively different concern with intelligence than the testing and measurement psychologists. Multi-dimensional intelligence has been graphically illustrated as a cube (Guilford, 1959) with multiple stimuli on one side of it and levels

of thinking on the second side so that at least 120 different kinds of intelligence are believed to exist as seen from the third side. However, the most significant implication for a flexible view of intelligence is that it "tries to account for a dialectical transformation of the projective biological [factors] and the introjective cultural-historical developments" (Riegal, 1973, pp. 6-7).

WHY A MULTI DIMENSIONAL APPROACH?

If the Terman model, in which children were studied who had a Binet IQ of 130-140 or above, is followed we get research concerns which hover around superior performance on tests. For example, of 120 research studies of gifted children over a period of twenty-three years, 99 of the studies were described in terms of psychological test performance superiority, 19 were identified in terms of some kind of educational superiority and 8 were concerned with "talented or eminent." Research seems to follow a conventional exploration of intelligence as defined by the tests to measure it (Newland, 1976). However, a follow-up study of the Terman people at mid-life showed that intelligence correlated only very slightly with success. Other factors such as social class background turned out to be a much more important factor in the differential success of members of the group (Terman, Vol. v, 1959). Continued focus on IQ scores as the pivotal point of identification, placement in programs, and subsequent evaluation indicates that such gifted programs will have a tendency to serve the upper and upper middle classes while ignoring talents found in other social class groupings. If we continue to act as if intelligence tests represent an adequate sample of all functions of intelligence, we must surely neglect different kinds of intellectual ability. Hudson (1970) demonstrates in his study that beyond a certain level achievement in later life is not predicted by a students early grades or showing on an IQ test. Hudson cites the remarkable story of a 16 year old youth who was a good physicist, gifted musically, gained an open scholarship to Cambridge,

and yet his IQ was lower than some 80% of his classmates (Hudson, 1970, pp. 270-271).

In Terman's fifth volume of Genetic Studies it is instructive to note that despite his female subjects scoring as high as their male counterparts on IQ tests at nine years of age, few if any succeeded in the conventional sense later during mid-life. One would have thought this would have caused Terman some concern about how malevolent the environment can be despite nature's bounties. These women were a reflection of the sexism all women could expect in that period, particularly exceptionally bright women. Yet Terman dismisses the failure of the young women in the study to realize their predictive potential with a reference to how difficult it is to measure success of housewives and mothers since "this is what the vast majority of women aspire to be" (Terman, Vol. v, p. 311). Those who rely on an innate approach to account for intelligence present a narrow plan of action in the identification and educational provision for the poor, the culturally different, the non-academically talented or women.

Practices for identifying, placing and evaluating multi-talented children promote a search for the gifted and talented in unorthodox and unconventional groups. It permits inclusion of performance indicators of talent, not just verbal test items. It includes a larger spectrum of talent than what is typically measured on IQ tests such as divergent thinking, motor-spatial talent, problem solving, or artistic talent. Performance based tests of this nature are closer to the items of predicting success in later life than items on IQ scores because they are activities which are engaged later in life

as well as during school. With a wider range of talent to survey, research methods may go beyond the test construction model.

If ability is not treated as a unitary trait but as a kaleidescopic phenomena, the danger of overlooking students with unusual potential is reduced. The talent search may therefore include the divergent thinkers, those creative people with above average but not extremely high IQ's. The focus would broaden the numbers of candidates who are able to think invencively about significant problems (Taylor, 1964; Wolfle, 1969). Teachers who have studied and used behavioral descriptors of these characteristics may become more effective and efficient in identifying children with hidden talents than in the past (Pegnato and Birch, 1959; French, 1964).

Since the conventional IQ focuses on primarily cognitive processes which are called convergent thinking, a more flexible approach to intelligence can emphasize qualitative differences that are as important as the quantitative ones. Indeed, the concept of "style of cognitive functioning" is much more central to the objectives of developmental psychologists than a linear notion of "more or less" intellectual ability (Getzels and Jackson, 1962; Wallach and Kogan, 1965). Rather than excluding intellectually unconventional learners as IQ tests do, such learners have an opportunity of being selected into the pool of talent. As opportunities develop for new tests, greater fluency and flexibility can be put into use (Taylor, 1960; Torrance, 1962, 1963; Wallach and Kogan, 1965).

It has been discovered that children who score very high on creativity tests are not always the same people who score high on IQ tests (Gallagher, 1975, p. 54). A flexible theory of intelli-

gence permits every child to be considered initially because the assumption is that talent may be found in other areas than verbal ability which dominates IQ tests. Guilford in his examination of 140 sub-tests of the Stanford Binet wrote "in spite of the great surface variety of the tests, there is an overwhelming weighting with tests of cognitive abilities" (Wallach and Kogan, 1965, p. 36). Conventional testing tends to identify many more mainstream children. A flexible theory of intelligence provides some encouragement that non-mainstream gifted and talented may be screened with greater success.

Ernest Bernal and Josephine Reyna's research design to find gifted and talented children among Mexican-American students is a good example of using an unconventional screening technique. They selected two communities in Texas for a survey. In both cases they visited the "barrio" where they interviewed Spanish speaking adults to elicit an adjective list which described how these people believed gifted and talented children behaved. The list of adjectives coined by Spanish speaking people became the base for a more refined check list that would be used in assisting teachers to identify these children in their classes. The researchers, sensitive to a value system of the bilingual community, pulled together a list of characteristics which included the following: "more aware of what is going on in the world than other children his age. . .proud, but not show-offs. . .frequently help other children in class or at home. . . more active. . . restless, don't like to be doing one thing. . . exhibits a strong, spontaneous desire for self improvement. . . has thoughts of becoming great. . ." (Bernal and Reyna, 1974a, p. 9).

The talent lost when the gifted are not identified and placed in differentiated school programs is inestimable. Many schools fail to screen or identify these young people, as illustrated in one survey of schools in which 57.7% of State Superintendents replied they had done no screening of gifted pupils (Education of Gifted and Talented, 1972, p. 29). The implication for such "indifference or outright hostility" is magnified when we consider that in 1970 the school population was 51,600,000 while the number of potentially gifted students, if set at 5% of the population, would have been 2,580,000 and at 3%, 1,548,000 (Education of the Gifted and Talented, 1972, p. 123). This depressing loss of potential talent among U.S. youth suggests that the public doesn't fully appreciate the merit in screening and providing educational opportunities for these children. In one school 54.6% of 251 highly gifted students, not in special programs, were underachieving at least four grade levels. It is almost certain that these young people will not only be left out of a screening procedure but they will continue to fall further behind in achievement (Newland, 1976, p. 91). Less effort is made to identify gifted and talented at the elementary level than at the secondary level even though research stresses the advantages of early identification and planning (Education of Gifted and Talented, 1972, p. 123).

The reasons for such obvious neglect includes the general public mistrust of developing an "elite" and a widespread conviction that the gifted and talented "can make it on their own" (Gallagher, 1975; Martinson, 1974). If we add the competing priorities of additional school concerns like the mentally and physically handicapped,

then it becomes evident that support for gifted and talented will receive a low priority when school funds are appropriated (Education of Gifted and Talented, 1972, p. 127).

Talent requires encouragement even though there are the well publicized stories of those who overcome difficulties to fulfill their talent potential. It is neither safe nor realistic to assume that unusual ability is always accompanied by high motivation and that despite obstacles of class, race, or cultural difference the talent will be utilized (Wolfle, 1969; Raph, Goldberg and Passow, 1966, p. 70). Gordon Parks, an award-winning Life photographer reflecting on his deprived youth illustrates this concern:

> I was a poor black boy who wanted to be somebody. . . It was all the more difficult because I was not technically prepared. . . Perhaps if I had been fortunate enough to have gone on to college, to study medicine, engineering or whatever I would not have become involved in so many other things. . . it means that I was forced to rid myself of the insecurities that lack of education brought me (Commire, 1976, p. 147).

CURRENT PRACTICE

Since 1972, when the U.S. Office of Education established a division of gifted and talented, many school districts have shifted their focus from using only standardized test scores to the use of multiple criteria in the screening procedure. The latter is a recognition that "even if standardized tests were perfectly reliable. . . tests are relatively poor predictors of long range success" (Dyer, 1963, p. 38). As the prospectus for screening gifted and talented is studied it is clear that there is a commitment to the definition of gifted and talented children as outlined in Public Law 91-230, Section 806 (1972). However, as the procedures of various schools are examined, it is clear that by multiple criteria many project directors mean multiple tests. The tests actually measure similar areas of intelligence and it is hard to see how the new Federal regulations, adopted by states since the multiple dimension intelligence thrust, differ from the old reliance on a single academic score.

An example of screening procedures used by Connecticut in 1974 advised school districts to "design an integrated procedure which combines. . . objective and judgmental measures for screening and selecting students." The practice, however, focuses on "consistently superior academic scores on appropriate tests. . . evidence of advanced skills" (White and Lanza, 1974, p. 11). First on the agenda for screening is the following: intelligence tests, group/or individual, achievement tests, special aptitude tests, personality measures, interest inventories and creativity tests. Additional focus

is on school grades followed by parent interview, student selection, pupil and peer nominations. Each of these may be a useful tool in assessing multiple talents but without a clear set of priorities, teachers and administrators tend to use test scores as the central focus for decision making in the selection process (Martinson, 1974; Martinson and Lessinger, 1960). Despite Renzuli's admonition "to minimize the amount of individual testing required and to show a relationship between the objectives of the program and the criteria upon which selection is based," Connecticut schools tended to select the easiest administrative procedure, test scores (White and Lanza, 1974).

Staff development about what constitutes multiple talent is virtually omitted (Intermediate Unit Programs for the Gifted, 1975-76). A replication of these procedures with some variations may be found in the selection procedures for Idaho (Guidelines for Gifted/Talented Programs. . ., 1975), North Carolina (McBride, 1969), Juneau, Alaska (Miller, 1973-74), Minnesota (Villars, 1967), South Dakota (Programs for Gifted Talented. . ., 1972), Arizona (We are each like the unicorn. . ., 1975).

A multiple criteria selection procedure should reflect a concern for reducing racial and socio-economic biases and specialized training for teachers to identify talent in leadership, art, music, creativity, and psycho-motor ability.

Change is occurring, but the question is how rapidly and with what kind of quality. The Torrance Tests of Creativity (1966) have uncovered culturally different youth with talents not typically identified by the tests of cognitive ability (Tongue, 1974). Some

schools appreciate the inadequacies of using only IQ or achievement scores. Yet, despite the use of multiple instruments, they have had difficulty in determining what is meant by multiple criteria and how to develop them. There is no mention of specific teacher training sessions as a part of the criteria for screening and identification. In this respect the Multi-Dimensional Screening Device (MDSD) (Gustafson, Kranz & Riley, 1975) is unique. It is the only screening procedure that includes in-service staff development as one of its three criteria for screening gifted and talented students. In fact, permission to use the screening device is predicated on use of a video tape for this purpose which is sent along with the screening kit and copyright waiver.

The emphasis in screening gifted and talented children, like the issue of how much intelligence is fixed by heredity or environment, has shifted. Corresponding to a notion of flexible intelligence, screening includes as many divergent abilities as convergent abilities. In order to discover unusual talent in a diverse population screening procedures include performance indicators which permit bilingual, culturally different, underachieving, or artistic learners to demonstrate their talents so that placement may be made from a wider pool of talent than if only a verbal test of achievement is used (Martinson, 1974; Gallagher, 1975; Newland, 1976). This is more in keeping with new biological and psychological research which rejects the old paradigm of a quantitative measure as the only way to determine talent (Fischer, 1973; Riegal, 1973). Adoption of multi-dimensional screening procedures may result in multiple models which are useful to the school district, the teacher and the

learner. It may well change the whole thrust of research in intelligence and talent (Elias, 1973).

IMPLEMENTATION OF THE MDSD

The identification of gifted and talented students begins with training teachers who are going to rate students in their classes. Basic to their ability to rate students is information about gifted and talented children in all social class and racial groupings as well as information about unconventional but highly promising student talents. The rating instrument is implemented during the second part of the school year, when teachers know their pupils better. During the rating time-period teachers have available to them a TV cassette for additional instruction with the MDSD booklet (Appendix). Principals select the names of children who have the mathematical combinations printed on a simplified scoring sheet (Appendix). The Local Screening Committee makes its final sort based on additional data and teacher assistance. Finally, the child is placed on a program. An illustration of each of these steps is graphically outlined in Figure 1 to illustrate the MDSD screening procedure.

STEP 1:	Staff development
STEP 2:	Each teacher rates every child in class on MDSD
STEP 3:	Class Rating Form submitted to Principal
STEP 4:	Simplified Scoring Sheet used to select potential g/t candidate
STEP 5:	Pupil Data Form Pupil Questionnaire Parent Questionnaire filled out for those pupils with initial criteria score of 146+ on 4 highest ratings

STEP 6: Local Screening Committee meets.
Evaluates:
Pupil Data Form
Pupil Questionnaire
Parent Questionnaire
Teacher Information Form filled out as needed.

STEP 7: Local Screening Committee selects children either for further individual testing or placement into a g/t program without further testing.

Figure 1. Instructions for Screening Students for Gifted and Talented Programs.

The procedures for identifying and placing a child in a gifted and talented program are systematic and performance criterion based. Observing children from various walks of life, teachers who are sensitized to subtle talents may become a great asset in the procedural diagnosis of gifted and talented children who may have been previously overlooked. The MDSD includes:

> observations. . . ordered and analyzed in various ways so as to permit one child to be compared with another. The method lies somewhere between intensive clinical study of the single case through a store of information amassed over a considerable time period, on the one hand, and extensive sampling of persons with a small amount of information obtained in the case of each individual, on the other (Wallach and Kogan, 1965, p. 286).

The screening procedure has three parts: the MDSD booklet, staff development which may be accomplished by viewing a TV cassette tape made for this purpose or instruction by a trained person experienced in the use of the MDSD, and action by the Local Screening Committee (LSC) (Appendix) at each school site where rating occurs. Each of these, the MDSD, the staff development, and the LSC will be discussed further. Together they constitute a total procedure; no

part may be used without the other.

The Multi-Dimensional Screening Device

The MDSD lists ten talents by which all children in a classroom are rated. Each talent was culled from the review of literature related to the definition of gifted and talented issued by the U.S. Office of Education in its 1972 Report: Education of the Gifted and Talented. Expansion of the definition was, however, essential for developing discreet talents which teachers would be able to detect in the children they rated. Global definitions of talent are too ambiguous if identification on a performance criterion reference is to be stressed. The review of literature presented thus far points very strongly to the fact that the more talents that can be discreetly described, the more possible it is for the researcher or rater to measure a specific ability (Hunt, 1969). Wallach and Kogan (1965) write that there are not only differences between creativity and intelligence, as conventionally measured, but even between two kinds of creativity, verbal and visual. These two types of creativity are largely independent of each other. Therefore, a selection of ten talents with performance indicators to assist raters in delineating each talent enables the rater to identify a particular talent more readily. The talents to be identified were those, more or less, visible in a school setting. In their work on creativity, Wallach and Kogan suggest that "the dimensions upon which the subjects are rated must reflect behaviors that are actually revealed in the school setting. Further, such dimensions should directly tap specific observable aspects of behavior" (1965, p. 70).

The following talents were selected:

I. Ability in the visual arts

II. Ability in the performing arts

III. Demonstrated creative or productive thinking

IV. Academic ability in a particular discipline

V. General intellectual ability at or above 1 of 100 range

VI. Leadership qualities; organizing; decision making

VII. Psychomotor history and abilities

VIII. History and use of spatial and abstract thinking

IX. High discrepancy between performance and general intellectual ability

X. Talent associated with the child's cultural heritage

As will be noted in the MDSD located in the Appendix, each talent has a definition and a series of behavioral performance indicators for that ability. After the talents were compiled, a group of eight highly experienced teachers of the gifted were assembled to describe how children in their classrooms behaved if they had "ability in the performing arts." A discussion for each of the ten talents followed. At the conclusion of several sessions the choices were selected. The MDSD talent choices were the combined efforts of the authors of the device and the teachers. The expertise and successful teaching record of the teachers who assisted in selecting the ten talents and their performance indicators were valuable sources of information. Like Wallach and Kogan's seminal study of creativity and intelligence in a natural school setting, those teachers provided the MDSD designers with information comparable to Wallach and Kogan's "trained raters" which implies:

> Where trained raters are given the opportunity to observe school children engaging in a variety of school and recreational activities over a reasonable period of time, we may have achieved the most accurate appraisal of behavior that can be obtained in practice (1965, pp. 69-70).

Staff Development

The authors of the MDSD are concerned with the task of staff development, whereby teachers will learn how to rate children in their classrooms and improve their judgment about the gifted and talented student. To this end workshops should be planned for each school. The workshop participants perform a "turn-around" training session at their respective schools. Additional support personnel should be assigned to assist people at each school where help is needed.

A public television channel may be contracted to demonstrate the rating procedure on afternoons when schools have a preparation time or an early closing. Thereafter a TV cassette is available to each school for further instruction in rating if necessary.

It takes teachers between 2 to 5 hours to rate the children in their classes depending on the staff development and the time of the year the children are rated. It is recommended that rating begin in January.

Scoring Each Talent

The scoring of talent is based on a scale of 1 to 7, with 7 being the highest and 1 the lowest. Talents are rated with regard to frequency, intensity, and quality as explained in the MDSD (Gustafson, Kranz and Riley, 1975). Frequency refers to the number of times the behavior is demonstrated in proportion to the opportunities

to do so. It is not important whether the teacher-rater approves of the behavior, but rather how often the behavior is displayed. During staff development workshops organized to train teachers how to rate a class of students, teachers were cautioned to provide opportunities for the talents to be evident. For example, providing opportunities for children in drama. That is to say, a story dramatized with a changed ending. Therefore, curriculum planning had to be designed in order for such behavior to occur. This is another reason that rating should take place later in the school year when teachers have seen their children behave in various situations.

Intensity with which a talent is displayed refers to the number of times the behavior is demonstrated in proportion to the opportunities to do so. An example of this is asking children to draw a literal expression from a colloquial one. That is to say, draw the expression "driving a nail home." Teachers were reminded to gauge how intensely a candidate engages in this type of activity.

The quality implies some standard of excellence and relates more to the academically/socially desirable categories of behavior. For assistance with quality, the rater may request input from other teaching staff members with expertise, e.g., art, music or physical education teacher.

The ratings are made for all the children on one category before moving on to another category. It is essential that the children be compared to one another each time until all ten talents are completed. This suggests teachers rate vertically and not horizontally. In this way a teacher-rater respects the multi-dimensional talent strengths within each child. At the completion of rating a teacher

may find that some children received a 6 or 7 rating on one or more talents but this score would not be sufficient to make the child a candidate for a special gifted and talented program. The teacher may have discovered several children who had one or two high talent scores but whose overall talents did not warrant placement in a differentiated program. These intermittent high scores do, however, suggest that the classroom teacher may have to redesign lesson plans in order to address these talents throughout the rest of the school year in the regular classroom.

The current class of children that teachers work with is the referent group teacher-raters use because judgment is less clouded by nostalgic or romantic memories of previous classes of children taught. Sometimes the further back in memory a teacher goes for comparison with a current group of children, the less realistic he/she is about their achievements and talents. Since the children usually are identified for a program at a local school site, the current group is more appropriate for comparison.

Four out of Ten Talents--
Selection of Candidates

After the teacher rates a class of 25-30 students on each of ten talents, the information is recorded on a grid-like sheet (Appendix) which is sent to the principal. The principal selects those children who score 146 or better on four talents, whose value is squared. The scoring and computation were simplified by compiling a scoring sheet (Appendix) with every possible combination of scores which would suggest that the child might be a candidate for a program. Essentially the scoring is based on the U.S. Office of Education

guideline that the gifted and talented are 3-5% of a population. This guideline influenced 146 as the cut-off for scoring candidates, prior to their names being placed before the Local Screening Committee.

Local Screening Committee

The Local Screening Committee (LSC) is composed of approximately five people who may be: the teacher of the local gifted and talented program, the principal, a counselor, a librarian, an art teacher, etc. (Appendix). This committee evaluates the initial data supplied by the teacher-rater from the MDSD, a Pupil Interest Inventory Form (Appendix), a Parent Questionnaire (Appendix), a teacher form (Appendix) and optional upon request from the LSC, test scores (SRA, STEA, Otis-Lennon, Metropolitan Readiness, etc.). The LSC is instructed to give the most serious consideration to the teacher ratings. However, if there is a teacher rating, for example, of a 7 on performing arts, the highest possible score, and the Pupil Inventory indicates this child is mortally afraid to speak in public, the LSC would request anecdotal or performance data from the teacher substantiating the 7 given to the child in this category. If the information is incongruous, the additional data (test scores, interest inventory, etc.) might warrant more consideration. The LSC makes the final decision after it has screened all the available data about the candidate. It performs the function of providing a full scale case study approach to each candidate for gifted and talented programs.

A school agency may decide to omit the Parent Questionnaire in order to avoid high expectations from the community while the screening is in progress and final decisions have not been released. A school agency may also choose to select candidates without any

additional testing and rely mainly on the MDSD.

Conclusions

The MDSD is a novel response to a crucial problem in education, the screening and identification of all children who may have unusual talents and gifts and who need a differentiated education. It is a device intended to assist teachers, both in raising their awareness of the multiple criteria of giftedness and in screening talented children in their classes. Furthermore the MDSD doesn't seem to discriminate against children with different socio-economic backgrounds. It is gratifying to observe that children designated as less affluent, when rated as having more pronounced visual art and creative talents, are identifiable by the MDSD. The screening procedure used in the MDSD indicates a positive trend in the ability to select talented Black children and an even stronger ability to select other minorities in equitable percentages to their distribution in the population of the study. The results from the use of the screening procedure in the study suggests that increasingly larger pools of children will be identified as well as several different kinds of talents.

The MDSD is an effective and efficient instrument for use in schools by teacher raters. It is not costly and it requires no more time than a good case study approach to understanding the strengths and weaknesses of a learner.

The use of the MDSD has implications, not only in selecting talented children for a special program, but in helping teachers find children with some identifiable talents which should be addressed in the regular classroom. This suggests that curriculum planning within

the regular classroom should focus on a kaleidoscope of talents that serves the vast majority of children if individual lesson plans begin to be shaped around the talent strengths of children.

The MDSD suggests that curricula has to be designed with more open-ended tasks in order for the teacher rater to score children on such talents as visual and performing arts or creativity, spatial, psychomotor or organizing talents (Appendix). Given sufficient notice before the actual screening time-table for selecting the gifted and talented in a classroom, all children are apt to get a "taste of honey" in terms of the activities a teacher needs to provide to see the performance based talents of the MDSD.

MULTI-DIMENSIONAL SCREENING DEVICE
(MDSD)

for the Identification of

Gifted/Talented Children

School District Personnel wishing to Reproduce and Use this Instrument must view the Associated Video-Tape which is available from the Office of Special Education, N.D. State Department of Public Instruction, State Capitol, Bismarck, ND 58505.

Multi-Dimensional Screening Device (MDSD) for the Identification of Gifted/Talented Children

Purpose

This procedure, which used multiple criteria, is intended to facilitate identification of gifted/talented children. In the rating scheme, ten categories of behavior are defined that are considered to be characteristic of such children. Each category is accompanied by examples of specific behaviors. The examples are not exhaustive. They are intended only as illustrations to clarify the definitions for each general category.

The object is to rate each child on each of the ten categories, using a seven-point scale. Note: ratings are made only on each general category, not on the specific examples.

Some of the behaviors to be rated (e.g. music, art) are academically or socially desirable in the traditional sense. Other behaviors (e.g. student with obvious ability refused to do homework; nonconformity; changes experiment or task from that assigned) may be less desirable in the traditional sense but not in terms such as "superior," "Unacceptable," etc. but rather in terms of the frequency, intensity, and where appropriate, quality of the behavior. These terms are defined below.

frequency: refers to the number of times the behavior is demonstrated in proportion to the opportunities to do so.

intensity: refers to the amount of intellectual, emotional or physical energy that the child invests in the behavior or activity.

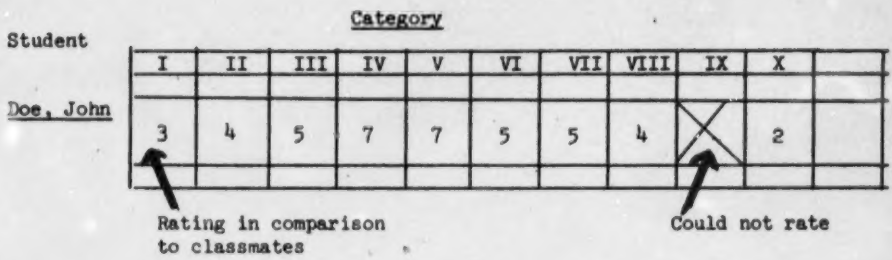
quality: implies some standard of excellence and relates more to the academically/socially desirable categories of behavior.

Procedure

1. Read and familiarize yourself with the definition and illustrations for each category. Refer to definitions and scale as necessary when rating on page 14.

2. Each child is rated with respect to a reference group. This group consists of his/her present classmates. Using the form provided, rate the first child on Category I in comparison to his/her classmates (enter the score in the box provided, as shown on page 2.

Procedure (continued)



3. Now rate the remaining children on Category I as shown above

4. REPEAT THE ABOVE PROCESS, RATING EACH CHILD ON EACH CATEGORY BEFORE PROCEEDING TO THE NEXT CATEGORY. CONTINUE UNTIL EACH CHILD HAS BEEN RATED ON EACH OF THE TEN CATEGORIES.

DEFINITIONS AND EXAMPLES OF CATEGORIES

CATEGORY I

ABILITY IN THE VISUAL ARTS

General Definition:

The ability to paint, sculpt, photograph, or arrange media in a way that suggests unusual talent.

Examples:

- paints or sculpts in a non-prescribed way (typically not taught by teachers)
- changes or throws away the directions in a commercial crafts package (knitting, sewing, crewel, models, paint-by-numbers)
- has a know-how about technique in a theatrical situation without having been taught (puppetry, creating sets for a play, costumes, lighting, sound effects)
- constructs objects from relatively unsophisticated scraps
- observant about details, either in other people's art or his/her own
- sensitive to touch, sounds, words, emotions
- experiments with color; chooses unconventional combinations

CATEGORY II

ABILITY IN THE PERFORMING ARTS

General Definition:

The ability to create or perform in the areas of music or drama which suggests unusual talent.

Examples:

- composes music
- changes lyrics to popular songs
- dances, sings, behaves musically in a non-prescribed way (typically untaught by teachers)
- responds emotionally to aesthetic situations involving music, poetry readings, etc.
- given an option will choose to dramatize situations, put them in a dance, or abstract form, rather than verbalize them
- uses body language to convey profound feelings in an unusual but clear manner
- plays one or more instruments with proficiency
- self-taught on one or more instruments

CATEGORY III

DEMONSTRATED CREATIVE OR PRODUCTIVE THINKING

General Definition:

An unusual ability to use divergent/evaluative thinking, often evidenced by frequent and exploratory questioning.

Examples:

- displays a keen sense of humor and sees humor in situations that others may not; a sense of the "absurd" (parody, cartooning, double entendre)
- prefers variety and novelty in food, color, clothing, methods of solving an old or new problem
- collects things sometimes randomly; other times with a definite purpose; many hobbies (some of long duration, but others short-lived
- invents solutions to established problems; creates problems for which there are no apparent solutions
- assembles or disassembles mechanical objects with little or no training
- asks many and unusual questions which may be embarrassing, advanced or controversial; unaffected by peer criticism
- imbues inanimate objects with life-like qualities (a pencil that thinks); vivid imagination
- appears forgetful, chaotic, and oblivious to time constraints (but within the disorder there is a logic for the student)
- leaves out steps; proceeds from A to Z in one jump

CATEGORY IV

ACADEMIC ABILITY IN A PARTICULAR DISCIPLINE

General Definition:

Extended and effective performance in a single academic area. (May be done to the exclusion of other academic areas); a one sided child

Examples:

- long or extended attention span for one topic
- makes independent contact with or carries on correspondence with experts in a field (Smithsonian Fellows, etc.)
- extensive effort put into a project--time is of no consequence--results are extremely sophisticated
- manages to change every topic under discussion to the discipline of his/her interest e.g. weather discussion soon becomes one of the Ice Age and dinosaurs

MATH

- gets answers, not able to explain how, yet usually correct
- performs computations easily and accurately but resists extensive calculating
- hypothesizes frequently; seems to make leaps in mathematical thinking
- works a long time on challenging problem although there is no solution (trisecting an angle)
- mastery of the slide rule or other measuring devices with little or no training
- preoccupation with scales, statistics, records (the first, the highest, the most in athletics, music, trivia)

SCIENCE

- has a history of participating in Science Fairs, etc.
- daydreams during regular Science classes, yet has several experiments and collections actively going on outside of class
- invents systems
- received recognition in a special field

CATEGORY IV (continued)

HUMANITIES

- reads avidly in a wide range of subjects
- fascination with biography, or art, or aesthetics, etc.
- shows ability to think in an inter-disciplinary manner e.g. History with English or Sociology with Science
- frequently shows dedication to a social cause e.g. feminism, ecology, equality

CATEGORY V

GENERAL INTELLECTUAL ABILITY AT OR ABOVE THE 1 OUT OF 100 RANGE

General Definition:

A demonstrated excellence in most academic areas, as opposed to a single area i.e. (Category IV)

Examples:

- able to perform academically and also participate in two or three school or outside activities
- unusual and extensive vocabulary
- prefers the complex to the obvious
- demonstrates a high energy level (rarely lethargic)
- has high achievement in most subject areas, but has specialities he/she also excells in
- phenomenal memory; needs little or no drill to memorize school related work
- long attention span in classroom assignments
- a perfectionist, may redo work many times
- responds to most school demands with enthusiasm

CATEGORY VI

LEADERSHIP QUALITIES; ORGANIZING; DECISION MAKING

General Definition:

An unusual ability to relate to and motivate other people

Examples:

- organizes others for an activity like an adult and with extraordinary results
- demonstrates a high level of self-assurance
- a decision maker; seldom wavers; has many and free-flowing ideas
- subtly devises strategies to convince peers to do a job seemingly unappealing at first
- demonstrates a personality that reassures co-workers of his/her competence (organizes clubs)
- has a broader perspective about a problem with many disconnected pieces; sees the whole while others focus on the parts
- a risk taker
- ability to supervise younger children in the absence of an adult

CATEGORY VII

PSYCHOMOTOR HISTORY AND ABILITIES

General Definition:

A student who is exceptionally advanced in his/her physical/motor abilities

Examples:

- uses equipment designed for older children with proficiency (skate board, needle-work, etc.)
- consistently picked to play on a team with older youngsters
- performs complicated physical activities (sports, dance, games)
- demonstrates unusual strength, balance, coordination for a child this age
- achieved prominence in some athletic endeavor, mechanical prowess, or invention
- uses equipment of a complicated or finely tooled nature with expertise, with little or no training

(NOTE: wherever possible consult the physical education or industri arts teacher)

CATEGORY VIII

HISTORY AND USE OF SPACIAL AND ABSTRACT THINKING

General Definition:

Unusual talent for visualizing and abstracting, seemingly without reference to an underlying step-wise (concrete) thought process.

Examples:

- when looking at an incomplete diagram, framework, tinker toy, or partially completed "follow the dots," the youngster correctly guesses the finished product
- uses the following instruments often at a young age, and with skill: ruler-compass, Etch-A-Sketch, protractor, compass, telescope, or microscope
- does complicated puzzles; plays chess, bridge, poker: does cross-word puzzles, finding the missing object in embedded figures, riddles, math puzzles
- shows a passion for statistics, almanacs, globes, maps
- devises own languages, codes, number systems
- is sensitive to patterns in shapes; intervals of music and numerals; and patterns in nature
- reconstructs from small bits of evidence of a configurative nature (clouds, bits of rock, etc.)
- a student who early, and frequently, senses that "where there is pattern, there is significance" *** W.W. Sawyer, Prelude to Mathematics, Pelican 1960
- has the ability to translate the unfamiliar abstraction into a familiar form, e.g. (converting an algebraic idea into his/her own formula or a feeling into a simile or metaphor)
- can translate the familiar into an abstraction

CATEGORY IX

HIGH DISCREPANCY BETWEEN PERFORMANCE AND GENERAL INTELLECTUAL ABILITY

General Definition:

The ability to think on a high level but classroom performance seems to contradict this. (an underachiever)

Examples:

- a significant difference between classroom performance and performance on wide-range achievement tests
- seems inattentive, bored with typical school requirements, but "comes alive" when special topics are raised, e.g. old movies, Watergate, life on other planets
- verbalizes on a wide range of topics, but avoids writing; prints well, but may have trouble with cursive (more common among boys)
- resists revising work; resists doing conventional class assignments
- critical of conventional behavior
- high absenteeism, but keeps up with grades despite missing much formal teaching
- self-taught in some topics not often taught in school
- one-sided about some subjects (deep interest to exclusion of all else)

CATEGORY X

TALENT ASSOCIATED WITH THE CHILD'S CULTURAL HERITAGE

General Definition:

Given his/her cultural background, the student demonstrates unusual ability to cope with his/her present environment. (ethnic, economic, social)

Examples:

- unusual oral ability (poetry, choral speaking, rhetoric)
- sees the double meaning (puns) and nuances between two languages he/she uses
- speaks standard English and conforms to school achievement priorities, yet is able to function in second language or dialect at home and the community very well
- when confronted by obstacles (budgeting, making family meals, babysitting, earning money, being "street-wise") he/she is able to cope.
- is critical of institutional structures and has alternatives
- responds to music, dance, sound-type experiences with unusual depth and understanding
- performs mechanical (machine-type) tasks with little or no training
- frequently asks for concrete examples of highly abstract concepts, e.g. honesty, justice, patriotism
- exhibits an extensive knowledge about some hero (Roberta Flack, Wilt Chamberlain, Cesar Chavez, Dennis Banks)
- an unorthodox collector (related to cultural heritage) but not necessarily a school valued activity, e.g. records, photographs from magazines, statistical data (baseball cards)--a vast storage of information on pool room sharks or basketball records

Seven-Point Rating Procedure

Numerical Rating	Description
7 (Maximum)	In this category the child is among* the very highest in frequency, intensity, and/or quality of the behavior in comparison to the reference group
6	Behavior is significantly more frequent, etc.
5	Behavior is somewhat more frequent, etc.
4 (Mode)	Behavior is typical or commonly observed in the reference groups
3	Behavior is somewhat less frequent, etc.
2	Behavior is significantly less frequent, etc.
1	In this category the child is among the very lowest in frequency, intensity and/or quality of the behavior in comparison to the reference group
X	Category cannot be rated

* NOTE: It is possible that more than one "/" may be in a category

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CATEGORIES

I ABILITY IN THE VISUAL ARTS

II ABILITY IN THE PERFORMING ARTS

III DEMONSTRATED CREATIVE OR PRODUCTIVE THINKING

IV ACADEMIC ABILITY IN A PARTICULAR DISCIPLINE

V GENERAL INTELLECTUAL ABILITY AT OR ABOVE 1 OUT OF 100 RANGE

VI LEADERSHIP QUALITIES; ORGANIZING; DECISION MAKING

VII PSYCHOMOTOR HISTORY AND ABILITIES

VIII HISTORY AND USE OF SPATIAL AND ABSTRACT THINKING

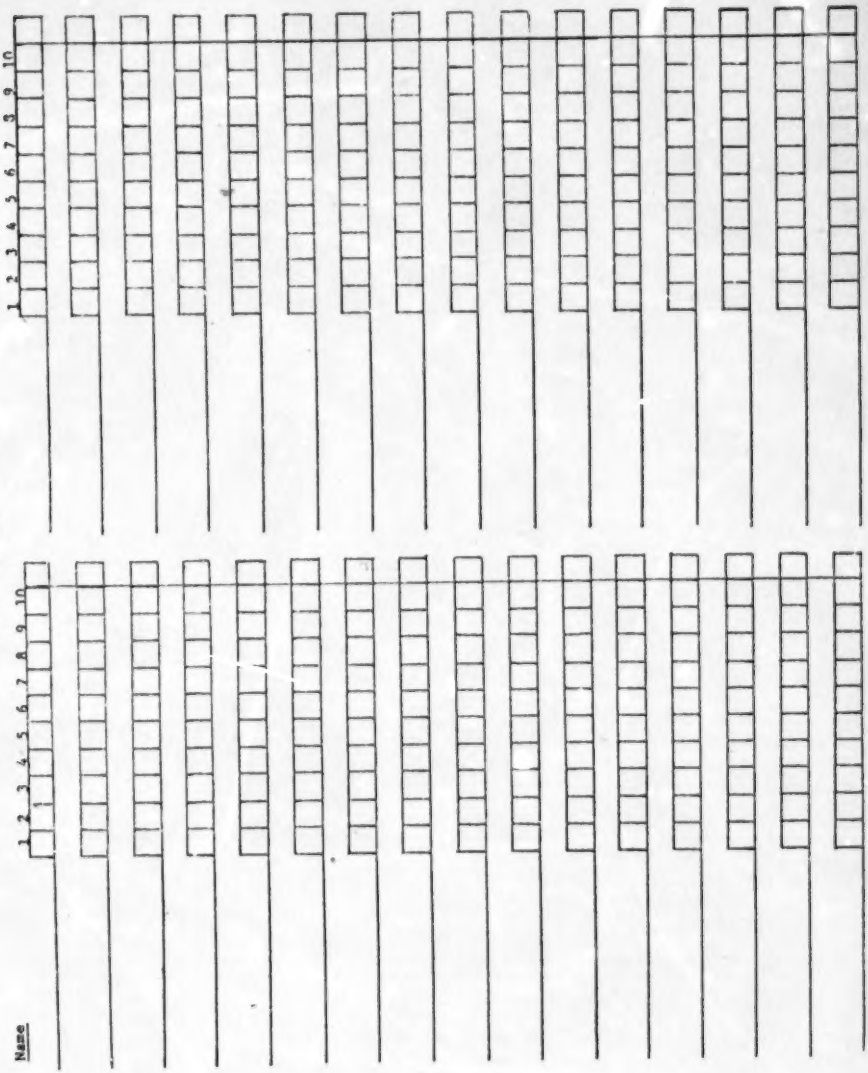
IX HIGH DISCREPANCY BETWEEN PERFORMANCE AND GENERAL INTELLECTUAL ABILITY

X TALENT ASSOCIATED WITH THE CHILD'S CULTURAL HERITAGE

School_____ Grade _____ Teacher_____

Date _____

TEACHER RECORD SHEET



SIMPLIFIED SCORING PROCEDURE

MULTI-DIMENSIONAL SCREENING DEVICE FOR THE IDENTIFICATION OF GIFTED/TALENTED

There are only a limited number of rating combinations (highest four categories) that will yield a sum of squares of 146 or more. This eliminates the need for screening personnel to perform any mathematical computation.

The combinations and corresponding sums of squares are given below.

Four Highest Categories	Sum of Squares
7777	196
7776	183
7775	163
7766	170
7765	159
7666	157
7764	150
7755	148
7665	146

Additional possible but highly unlikely combinations

7774	163
7773	156
7772	151
7771	148

In the preliminary screening process it is only necessary to identify students falling <u>at</u> or <u>above</u> 146. Therefore, all the scorer need do is scan the rating sheet and place a check next to any student who has 7665, 7755, 7764 or higher as his/her four highest ratings in any four categories.

LOCAL SCREENING COMMITTEE

I. Composition

Consider a five member team selected from:

1. Principal
2. Staff Teacher for Local G/T Program
3. Guidance Person
4. Psychologist
5. Art Consultant
6. Music Consultant
7. Librarian

II. Responsibilities

A. After the computations have been made on the results of the Preliminary Screening Device, the candidates should also have the following for the Committee to evaluate:

1. Teacher Form*
2. Pupil Questionnaire
3. Parent Questionnaire
4. Pupil Academic Data

*Teacher Form:

This form assists in gathering observable student products or anecdotal information from the teacher to explain the ratings in talent categories on which each child was evaluated.

e.g. Art work, musical composition, inventions, hobbies, plays directed or acted in, experiments, Science Fair entries, etc.**

**See Attached

B. The Committee needs to determine what is the correspondence between the 4 categories rated highest by the teacher and items 1-4 above.

C. The Committee should feel free to seek any expertise to assist it in selecting candidates for the local programs for G/T.

D. Essentially the Local Screening Committee is making a second level judgement about whether the talented children recommended to it have supported evidence of a behavioral nature to warrant their being placed in a local differentiated program for gifted and talented.

II. LOCAL SCREENING COMMITTEE

Check Items Used:

Pupil Questionnaire _____

Teacher Form _____

Anecdotal Information _____

Pupil Products _____

_____

_____

_____

Pupil Placement Recommendation

Yes____ No____

Parent Recommendation

Yes____ No____

Additional Comments: _____

_____

_____

PUPIL INTEREST SURVEY

Date_____

1. School_____ 2. Pupil_____

3. Sex (circle) B G 4. Grade_____

5. What are your favorite TV programs?_____

_____

6. What are your favorite magazines?_____

_____

7. What parts of the newspaper do you like to read best?_____

_____

8. What are the best books you have read this year?_____

_____

_____

9. Of what clubs or organizations are you a member?_____

_____

Offices held:_____

Honor or recognition received:_____

10. Special activities you take part in at school:_____

_____

11. In which sports are you interested?_____

_____

Do you play?_____

12. Your favorite recreation:_____

13. List your hobbies:_____

_____

_____

_____

_____

Do you have other interests? Please list_____

_____

_____

List any collections you have made and your age when you made them:_____

_____

_____

What is your favorite activity with your family?_____

_____

Have you taken any trips outside of Virginia?_____

Where?_____

_____

What kind of trips would you like to take if you could._____

_____

_____

What are your favorite school subjects?_____

_____

What subjects do you dislike?_____

_____

What do you like best about school?_____

_____

What do you like least?_____

_____

If you had a half day of free time during the week, how would you like to use it? Be specific. _____

_____

The thing I like to do when I'm alone is_____

_____

(Attach more sheets if necessary)

PARENT QUESTIONNAIRE

1. School_____
2. Student_____
3. Sex (circle) B G
4. Grade_____
5. Birthdate_____
6. Age_____
7. Brothers and sisters: Names Ages

_____ _____

_____ _____

_____ _____

8. Child's recreational choices:_____

_____

9. Choice of friends (ages, sex, numbers, etc.)_____

_____

10. How does this youngster get along with friends?_____

_____

11. What is the child's favorite activity when alone?_____

_____

12. Child's membership in out-of-school clubs or groups_____

_____

13. Child's reading interests (favorite books--type, titles)_____

_____

14. Amount of child's reading per week (estimate)_____

_____

15. Child's hobbies and collections_____

_____

16. Child's special talents or skills_____

_____

17. Child's special problems or needs at home_____

_____

18. Child's home responsibilities/chores:_____

_____

19. Child's school needs as you see them_____

_____

20. Music, Art; Dance; etc. Lessons

Kind	How long taken	Frequency
_____	_____	_____
_____	_____	_____

21. Trips child has taken outside of Fairfax County

Place

_____

_____

22. What unusual experience of this child do you still remember?_____

_____

_____

_____

_____

Date_____ _____

Name of informant

_____

Relationship to child

Attach additional information if yo wish.

PS 21 (12/76) Replaces IS/SS 199 (12/75) which is obsolete
FAIRFAX COUNTY PUBLIC SCHOOLS
FAIRFAX, VIRGINIA

PROGRAM FOR GIFTED/TALENTED
PUPIL DATA FORM

Name _____ Grade _____ Date _____

Birthdate _____ School _____

I. PRELIMINARY SCREENING RATING SCALE CATEGORIES

	Rating Score
1. Unique ability in the visual arts	
2. Unique ability in the performing arts	
3. Unusual amount of demonstrated creative or productive thinking	
4. Unique academic ability in a particular discipline	
5. General intellectual ability at or above the 1 out of 100 range	
6. Unique leadership qualities: organizing, decision-making	
7. Unusual psychomotor history and abilities	
8. Unique history and use of spatial and abstract thinking	
9. Unusually high discrepancy between performance and general intellectual ability	
10. A unique talent associated with the child's cultural heritage	

II. ACADEMIC INVENTORY

SEE REVERSE SIDE

GROUP TESTS (Aptitude, Ability, Intelligence, Achievement	Date Admin.	Score	National Percentile
STEA			
SRA (Composite)			
Otis-Lennon			

INDIVIDUAL TESTS (Aptitude, Ability, Intelligence, Achievement)	Date Admin.	Score	National Percentile
Stanford-Binet			
Wechsler			
WPPSI			
Slosson			
60			

III. LOCAL SCREENING COMMITTEE (Refer to purpose and definitions, page 1 of Multi-Dimensional Screening Device)

Categorical Evidence Produced/Verified

Ability in the Visual Arts (Category I)
- ___paintings
- ___drawings
- ___sculpture
- ___murals
- ___set design
- ___photography
- ___is sensitive to sound, touch, color, feelings of others
- ___other (specify) _____

Ability in the Performing Arts (Category II)
- ___musical composition
- ___voice ability (teacher verified)
- ___musical instrument ability (tchr ver)
- ___dance and body movement (tchr ver)
- ___stage presence (tchr ver)
- ___original play or playlet
- ___poetry
- ___self-taught examples
- ___other (specify) _____

Creative or Productive Thinking (Category III)
- ___inventions (games, tools, machines, etc.)
- ___experiments (in and out of class)
- ___original cartoons
- ___hobbies
- ___mechanical ability at a unique level
- ___original solutions to problems (tch ver)
- ___original humor (tchr ver)
- ___uses classroom material in a different way
- ___tape recordings
- ___devises new games
- ___asks divergent questions
- ___a critical thinker (tchr ver)
- ___other (specify) _____

Academic Ability in a Part Discipline (Category IV)
- ___SRA scores
- ___other standardized scores (specify) _____
- ___slide rule mastery
- ___science fair projects
- ___language arts awards
- ___in depth research in a particular discipline
- ___corresponds with experts in a special field
- ___other (specify) _____

Gen. Intellectual Ability 1/100 Range (Category V)
- ___intelligence test scores
- ___ability evidenced by student's performance (tchr ver)
- ___unusual language ability (metaphor, simile, etc.)
- ___demonstrates persistence
- ___long attention span in a particular field
- ___wisdom about a topic beyond his/her years
- ___other (specify) _____

Leadership, Organizing, Decision-Making (Category VI)
- ___organizes for dissent
- ___SCA
- ___patrol officer
- ___class leader
- ___club organizer
- ___selected by peers for leadership roles
- ___is a risk-taker
- ___other (specify) _____

Psychomotor History and Abilities (Category VII)
- ___physical fitness awards
- ___soccer, football, baseball, etc., awards
- ___recognition for sports, dance, games abilities
- ___ability to use complicated equipment/machinery
- ___displays unique strength, coordination, balance
- ___other (specify) _____

History and Use of Spatial & Abstract Thinking (Category VIII)
- ___evidence of solutions to incomplete diagrams
- ___manipulative ability with jig-saw puzzles
- ___ability with math & crossword puzzles
- ___ability at chess, backgammon, bridge
- ___demonstrates concern with scales, statistics, codes
- ___is sensitive to patterns in numbers, words or nature
- ___other (specify) _____

Underachieving Students (Category IX)
- ___SRA score (discrepancy)
- ___other standardized scores
- ___intelligence test scores
- ___poor attendance/passing grades
- ___demonstrates erratic academic behavior
- ___high absentee rate but above average classroom achievement
- ___is self-taught
- ___other (specify) _____

Talent Associated With Cultural Heritage (Category X) (Rate only those children from culturally different backgrounds)
- ___ability in poetry, choral speaking, etc.
- ___does extensive research and gains extensive knowledge about some hero related to his heritage
- ___is very competent in his/her social roles in the family and community
- ___is able to cope at a mature level when confronted by unique home situations
- ___maintains his/her unique identity while functioning in an American social structure
- ___other (specify) _____

TEACHER MEMO FORM REQUESTS

The following are examples of the child's work or behavior which the Local Screening Committee may wish to request as appropriate to the four highest categories. Some other information will be found on the pupil and parent questionnaires, too.

I. Work Samples:

- paintings
- drawings
- sculpture
- musical compositions
- experiments (in or out of class)
- cartoons
- murals
- set design for puppet show, plays
- use of classroom materials, e.g., blocks, cuissenaire rods
- photography
- tape recordings
- voice ability
- musical instrument ability/ variety
- dance and body movement
- writing
- poetry
- hobbies
- math games or ideas devised
- correspondence with experts in a special field
- prizes/achievement in specific fields
- motors, mechanical objects assembled as a consistent pattern of behavior and unique for the age
- inventions
- academic achievement scores

II. Leadership Examples:

- list of offices held
- list of community or school activities in which leadership is displayed

III. Teacher Anecdotes concerning:

- child's vast knowledge about a topic
- athletic, motor, spatial ability
- language ability (metaphor, imagery, simile)
- student's intellectual risk taking
- student's persistence
- student's coping with economic or cultural differences between home and school
- child's sensitivity to sound, touch, color, other people's feelings
- child's type of questions (divergent)
- child's critical thinking qualities

child's attention span in a particular field
child's frequent concern with scales, statistics, codes, sensitivity to patterns in numbers, words, or nature
child's strength, coordination, balance
examples of unusual erratic academic behavior
examples of self-taught areas
examples of high absenteeism but above average classroom achievement
examples of a wisdom about a topic beyond one's years

**Teacher Form Requests:

The following are examples of the child's work or behavior which the local screening committee may wish to request as appropriate to the four highest categories. Some other information will be found on the pupil and parent questionnaires, too.

I. Work Samples:

paintings
drawings
sculpture
musical compositions
experiments (in or out of class)
cartoons
murals
set design for puppet show, plays
use of classroom materials, e.g. blocks, cuisenaire rods
photography
tape recordings
voice ability
musical instrument ability/variety
dance and body movement
writing
poetry
hobbies
Math games or ideas devised
correspondence with experts in a special field
prizes/achievement in specific fields
motors, mechanical objects assembled as a consistent pattern of behavior and unique for the age
inventions
academic achievement scores

II. Leadership Examples:

list of offices held
list of community or school activities in which leadership is displayed

III. Teacher Anecdotes concerning:

child's vast knowledge about a topic
athletic, motor, spatial ability
language ability (metaphor, imagery, simile)
student's intellectual risk taking
student's persistence
student's coping with economic or cultural differences between home and school

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